RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/568,259
Source: IFW/P
Date Processed by STIC: 2/23/06

ENTERED

IFWP

RAW SEQUENCE LISTING DATE: 02/23/2006
PATENT APPLICATION: **US/10/568,259** TIME: 08:00:42

Input Set : **A:\21101041U2.TXT**
Output Set: **N:\CRF4\02232006\J568259.raw**

```
      4 <110> APPLICANT: Glenn D. Prestwich
      5       Shenshen Cal
      6       Jodi Beattie
      7       Michael J. Mostert
     10 <120> TITLE OF INVENTION: HEPARIN BINDING PROTEINS: SENSORS FOR
     11       HEPARIN DETECTION
     13 <130> FILE REFERENCE: 21101.0041U2
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/568,259
C--> 15 <141> CURRENT FILING DATE: 2006-02-13
     15 <150> PRIOR APPLICATION NUMBER: PCT/US04/26066
     16 <151> PRIOR FILING DATE: 2004-08-12
     18 <150> PRIOR APPLICATION NUMBER: 60/494,495
     19 <151> PRIOR FILING DATE: 2003-08-12
     21 <160> NUMBER OF SEQ ID NOS: 67
     23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     25 <210> SEQ ID NO: 1
     26 <211> LENGTH: 9
     27 <212> TYPE: PRT
     28 <213> ORGANISM: Artificial Sequence
     30 <220> FEATURE:
     31 <223> OTHER INFORMATION: Description of Artificial Sequence; note =
     32       synthetic construct
     34 <220> FEATURE:
     35 <221> NAME/KEY: VARIANT
     36 <222> LOCATION: 1,9
     37 <223> OTHER INFORMATION: Xaa can be Arg or Lys
     39 <220> FEATURE:
     40 <221> NAME/KEY: VARIANT
     41 <222> LOCATION: 2-8
     42 <223> OTHER INFORMATION: Xaa = basic residues
     44 <400> SEQUENCE: 1
W--> 45 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     46  1               5
     48 <210> SEQ ID NO: 2
     49 <211> LENGTH: 43
     50 <212> TYPE: DNA
     51 <213> ORGANISM: Artificial Sequence
     53 <220> FEATURE:
     54 <223> OTHER INFORMATION: Description of Artificial Sequence; note =
     55       synthetic construct
     57 <400> SEQUENCE: 2
     58 cgggatccgg tgctagccgt gactcctatg cacagctcct tgg                    43
     60 <210> SEQ ID NO: 3
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RAW SEQUENCE LISTING DATE: 02/23/2006
PATENT APPLICATION: US/10/568,259 TIME: 08:00:42

Input Set : A:\21101041U2.TXT
Output Set: N:\CRF4\02232006\J568259.raw

<211> LENGTH: 39
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence; note = synthetic construct
<400> SEQUENCE: 3
ggagcggtcg acacggatgc ccagagcttt atctaattc 39

<210> SEQ ID NO: 4
<211> LENGTH: 72
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence; note = synthetic construct
<400> SEQUENCE: 4
gatccggtct cgagggaagt ggttctggaa gtggttcagg ttcgggtagc ggatctggtt 60
caggaagtgg tt 72

<210> SEQ ID NO: 5
<211> LENGTH: 72
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence; note = synthetic construct
<400> SEQUENCE: 5
ctagaaccac ttcctgaacc agatccgcta cccgaacctg aaccacttcc agaaccactt 60
ccctcgagac cg 72

<210> SEQ ID NO: 6
<211> LENGTH: 62
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence; note = synthetic construct
<400> SEQUENCE: 6
Arg Asp Ser Tyr Ala Gln Leu Leu Gly His Gln Asn Leu Lys Gln Lys
1 5 10 15
Ile Lys His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser
20 25 30
Glu Val Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys Gln Asn Glu
35 40 45
Leu Arg Leu Gln Gly Glu Leu Asp Lys Ala Leu Gly Ile Arg
50 55 60

<210> SEQ ID NO: 7
<211> LENGTH: 794
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:

RAW SEQUENCE LISTING DATE: 02/23/2006
PATENT APPLICATION: **US/10/568,259** TIME: 08:00:42

Input Set : **A:\21101041U2.TXT**
Output Set: **N:\CRF4\02232006\J568259.raw**

<223> OTHER INFORMATION: Description of Artificial Sequence; note = synthetic construct

<400> SEQUENCE: 7

```
Met Ser Phe Pro Lys Ala Pro Leu Lys Arg Phe Asn Asp Pro Ser Gly
 1               5                  10                  15
Cys Ala Pro Ser Pro Gly Ala Tyr Asp Val Lys Thr Ser Glu Ala Thr
            20                  25                  30
Lys Gly Pro Val Ser Phe Gln Lys Ser Gln Arg Phe Lys Asn Gln Arg
        35                  40                  45
Glu Ser Gln Gln Asn Leu Ser Ile Asp Lys Asp Thr Thr Leu Leu Ala
    50                  55                  60
Ser Ala Lys Lys Ala Lys Lys Ser Val Ser Lys Lys Asp Ser Gln Lys
65                  70                  75                  80
Asn Asp Lys Asp Val Lys Arg Leu Glu Lys Glu Ile Arg Ala Leu Leu
                85                  90                  95
Gln Glu Arg Gly Thr Gln Asp Lys Arg Ile Gln Asp Met Glu Ser Glu
            100                 105                 110
Leu Glu Lys Thr Glu Ala Lys Leu Asn Ala Ala Val Arg Glu Lys Thr
        115                 120                 125
Ser Leu Ser Ala Ser Asn Ala Ser Leu Glu Lys Arg Leu Thr Glu Leu
    130                 135                 140
Thr Arg Ala Asn Glu Leu Leu Lys Ala Lys Phe Ser Glu Asp Gly His
145                 150                 155                 160
Gln Lys Asn Met Arg Ala Leu Ser Leu Glu Leu Met Lys Leu Arg Asn
                165                 170                 175
Lys Arg Glu Thr Lys Met Arg Ser Met Met Val Lys Gln Glu Gly Met
            180                 185                 190
Glu Leu Lys Leu Gln Ala Thr Gln Lys Asp Leu Thr Glu Ser Lys Gly
        195                 200                 205
Lys Ile Val Gln Leu Glu Gly Lys Leu Val Ser Ile Glu Lys Glu Lys
    210                 215                 220
Ile Asp Glu Lys Cys Glu Thr Glu Lys Leu Leu Glu Tyr Ile Gln Glu
225                 230                 235                 240
Ile Ser Cys Ala Ser Asp Gln Val Glu Lys Cys Lys Val Asp Ile Ala
                245                 250                 255
Gln Leu Glu Glu Asp Leu Lys Glu Lys Asp Arg Glu Ile Leu Ser Leu
            260                 265                 270
Lys Gln Ser Leu Glu Glu Asn Ile Thr Phe Ser Lys Gln Ile Glu Asp
        275                 280                 285
Leu Thr Val Lys Cys Gln Leu Leu Glu Thr Glu Arg Asp Asn Leu Val
    290                 295                 300
Ser Lys Asp Arg Glu Arg Ala Glu Thr Leu Ser Ala Glu Met Gln Ile
305                 310                 315                 320
Leu Thr Glu Arg Leu Ala Leu Glu Arg Gln Glu Tyr Glu Lys Leu Gln
                325                 330                 335
Gln Lys Glu Leu Gln Ser Gln Ser Leu Leu Gln Gln Glu Lys Glu Leu
            340                 345                 350
Ser Ala Arg Leu Gln Gln Gln Leu Cys Ser Phe Gln Glu Glu Met Thr
        355                 360                 365
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RAW SEQUENCE LISTING DATE: 02/23/2006
PATENT APPLICATION: US/10/568,259 TIME: 08:00:42

Input Set : A:\21101041U2.TXT
Output Set: N:\CRF4\02232006\J568259.raw

```
173 Ser Glu Lys Asn Val Phe Lys Glu Glu Leu Lys Leu Ala Leu Ala Glu
174     370                 375                 380
175 Leu Asp Ala Val Gln Gln Lys Glu Glu Gln Ser Glu Arg Leu Val Lys
176 385                 390                 395                 400
177 Gln Leu Glu Glu Glu Arg Lys Ser Thr Ala Glu Gln Leu Thr Arg Leu
178                 405                 410                 415
179 Asp Asn Leu Leu Arg Glu Lys Glu Val Glu Leu Glu Lys His Ile Ala
180             420                 425                 430
181 Ala His Ala Gln Ala Ile Leu Ile Ala Gln Glu Lys Tyr Asn Asp Thr
182         435                 440                 445
183 Ala Gln Ser Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu
184     450                 455                 460
185 Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala Gln Leu
186 465                 470                 475                 480
187 Glu Ser Glu Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp
188                 485                 490                 495
189 Val Thr Ala Gln Leu Glu Ser Glu Gln Glu Lys Tyr Asn Asp Thr Ala
190             500                 505                 510
191 Gln Ser Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu Lys
192         515                 520                 525
193 Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Ser Ala Gln Leu Glu
194     530                 535                 540
195 Ser Tyr Lys Ser Ser Thr Leu Lys Glu Ile Glu Asp Leu Lys Leu Glu
196 545                 550                 555                 560
197 Asn Leu Thr Leu Gln Glu Lys Val Ala Met Ala Glu Lys Ser Val Glu
198                 565                 570                 575
199 Asp Val Gln Gln Gln Ile Leu Thr Ala Glu Ser Thr Asn Gln Glu Tyr
200             580                 585                 590
201 Ala Arg Met Val Gln Asp Leu Gln Asn Arg Ser Thr Leu Lys Glu Glu
202         595                 600                 605
203 Glu Ile Lys Glu Ile Thr Ser Ser Phe Leu Glu Lys Ile Thr Asp Leu
204     610                 615                 620
205 Lys Asn Gln Leu Arg Gln Gln Asp Glu Asp Phe Arg Lys Gln Leu Glu
206 625                 630                 635                 640
207 Glu Lys Gly Lys Arg Thr Ala Glu Lys Glu Asn Val Met Thr Glu Leu
208                 645                 650                 655
209 Thr Met Glu Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Glu
210             660                 665                 670
211 Lys Thr Lys Pro Phe Gln Gln Gln Leu Asp Ala Phe Glu Ala Glu Lys
212         675                 680                 685
213 Gln Ala Leu Leu Asn Glu His Gly Ala Thr Gln Glu Gln Leu Asn Lys
214     690                 695                 700
215 Ile Arg Asp Ser Tyr Ala Gln Leu Leu Gly His Gln Asn Leu Lys Gln
216 705                 710                 715                 720
217 Lys Ile Lys His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys
218                 725                 730                 735
219 Ser Glu Val Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys Gln Asn
220             740                 745                 750
221 Glu Leu Arg Leu Gln Gly Glu Leu Asp Lys Ala Leu Gly Ile Arg His
```

RAW SEQUENCE LISTING DATE: 02/23/2006
PATENT APPLICATION: US/10/568,259 TIME: 08:00:42

Input Set : A:\21101041U2.TXT
Output Set: N:\CRF4\02232006\J568259.raw

```
222         755                 760                 765
223 Phe Asp Pro Ser Lys Ala Phe Cys His Ala Ser Lys Glu Asn Phe Thr
224     770                 775                 780
225 Pro Leu Lys Glu Gly Asn Pro Asn Cys Cys
226 785                 790
228 <210> SEQ ID NO: 8
229 <211> LENGTH: 3539
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence; note =
235       synthetic construct
237 <400> SEQUENCE: 8
238 tcaggcgagc tgacagtttg ctggggcgtt tgattgctgt ctcatctgga cccaggcgtc      60
239 agaatgtcct ttcctaaggc gcccctgaag agattcaatg acccttcggg ttgtgctcca     120
240 tctccgggtg cttatgatgt taaaacttca gaagcaacta aaggaccagt gtcttttcag     180
241 aaatcacaaa gatttaaaaa ccaaagagag tctcaacaaa atcttagcat tgacaaagat     240
242 acaaccttgc ttgcttcggc taaaaaagca aagaagtctg tgtcaaagaa ggactctcag     300
243 aagaatgata aagatgtgaa gagattagaa aaagagattc gcgctctttt gcaagagcga     360
244 gggactcagg acaaacggat ccaggacatg gaatctgaat tggagaagac agaagcaaag     420
245 ctcaatgcag cagtcagaga gaaaacatct ctctctgcga gtaatgcttc actggaaaaa     480
246 cggcttactg aattaaccag agccaacgag ctactaaagg ctaagttttc tgaagatggt     540
247 caccaaaaga atatgagagc tctaagcctg gaattgatga aactcagaaa taagagagag     600
248 acaaagatga ggagtatgat ggtcaaacag gaaggcatgg agctgaagct gcaggccact     660
249 cagaaggacc tcacggagtc taagggaaaa atagtccagc tggagggaaa gcttgtttca     720
250 atagagaaag aaaagatcga tgaaaaatgt gaaacagaaa aactcttaga atacatccaa     780
251 gaaattagct gtgcatctga tcaagtggaa aaatgcaaag tagatattgc ccagttagaa     840
252 gaagatttga aagagaagga tcgtgagatt ttaagtctta agcagtctct tgaggaaaac     900
253 attacatttt ctaagcaaat agaagacctg actgttaaat gccagctact tgaaacagaa     960
254 agagacaacc ttgtcagcaa ggatagagaa agggctgaaa ctctcagtgc tgagatgcag    1020
255 atcctgacag agaggctggc tctggaaagg caagaatatg aaaagctgca acaaaaagaa    1080
256 ttgcaaagcc agtcacttct gcagcaagag aaggaactgt ctgctcgtct gcagcagcag    1140
257 ctctgctctt tccaagagga aatgacttct gagaagaacg tctttaaaga agagctaaag    1200
258 ctcgccctgg ctgagttgga tgcggtccag cagaaggagg agcagagtga aaggctggtt    1260
259 aaacagctgg aagaggaaag gaagtcaact gcagaacaac tgacgcggct ggacaacctg    1320
260 ctgagagaga aagaagttga actggagaaa catattgctg ctcacgccca agccatcttg    1380
261 attgcacaag agaagtataa tgacacagca cagagtctga gggacgtcac tgctcagttg    1440
262 gaaagtgtgc aagagaagta taatgacaca gcacagagtc tgagggacgt cactgctcag    1500
263 ttggaaagtg agcaagagaa gtacaatgac acagcacaga gtctgaggga cgtcactgct    1560
264 cagttggaaa gtgagcaaga gaagtacaat gacacagcac agagtctgag ggacgtcact    1620
265 gctcagttgg aaagtgtgca agagaagtac aatgacacag cacagagtct gagggacgtc    1680
266 agtgctcagt tggaaagcta taagtcatca acacttaaag aaatagaaga tcttaaactg    1740
267 gagaatttga ctctacaaga aaaagtagct atggctgaaa aaagtgtaga agatgttcaa    1800
268 cagcagatat tgacagctga gagcacaaat caagaatatg caaggatggt tcaagatttg    1860
269 cagaacagat caaccttaaa agaagaagaa attaaagaaa tcacatcttc atttcttgag    1920
270 aaaataactg atttgaaaaa tcaactcaga caacaagatg aagactttag gaagcagctg    1980
271 gaagagaaag gaaaaagaac agcagagaaa gaaaatgtaa tgacagaatt aaccatggaa    2040
272 attaataaat ggcgtctcct atatgaagaa ctatatgaaa aaactaaacc ttttcagcaa    2100
273 caactggatg cctttgaagc cgagaaacag gcattgttga atgaacatgg tgcaactcag    2160
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/23/2006
PATENT APPLICATION: **US/10/568,259** TIME: 08:00:43

Input Set : **A:\21101004102.TXT**
Output Set: **N:\CRF4\02232006\J568259.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,7,8,9

VERIFICATION SUMMARY DATE: 02/23/2006
PATENT APPLICATION: **US/10/568,259** TIME: 08:00:43

Input Set : **A:\21010041U2.TXT**
Output Set: **N:\CRF4\02232006\J568259.raw**

L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:45 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0